

The Storm Water Pollution Prevention Bulletin is prepared by the Storm Water Compliance Review Task Force to aid all projects and operations in maintaining compliance with the National Pollutant Discharge Elimination System (NPDES) permit requirements.

Dust Control of Construction Vehicle Traffic Areas using Liquid Soil Stabilizers CD26A

With the spring season upon us, it is appropriate to discuss non-storm water pollution issues caused by drier weather. Dust generated from construction activities may settle on, or be washed to, waters protected by the Clean Water Act (CWA). The CWA requires the activities be conducted utilizing Best Management Practices. This bulletin addresses dust control practices for areas subject to construction traffic loading.

Typical construction site dust control involves the application of water per Section 10 of the Caltrans Standard Specifications and by preserving the existing vegetation (CD23). However traffic-loaded areas such as construction roads and contractor yards may require a liquid soil stabilizer per CD26A to control dust.



Water truck with spray bar applicator

PRODUCT SELECTION

When selecting dust control products for traffic-loaded areas, besides cost, the following items should be considered:

- The duration the road or yard will be in use.
- The equipment required to apply the product.
- The environmental impact the product may have and the proximity to protected waters.
- The products' ability to maximize cost effectiveness by stabilizing the road or yard.

Listed below are various types of liquid dust control agents and their relative longevity and environmental hazard ratings:

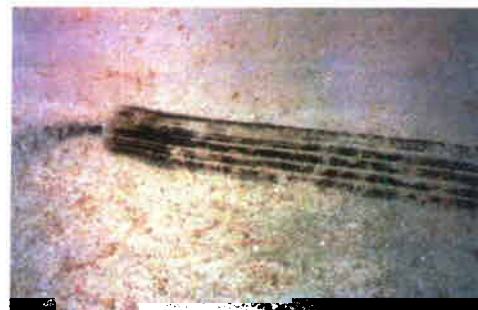
- **Calcium chloride (salt)** works well on damp soils, has a low longevity and a moderate to high environmental impact.
- **Surfactants** require frequent reapplication and have a moderate environmental impact.

- **Copolymers** can increase soil load bearing capacity, have high longevity and little environmental impact.
- **Lignin sulfonate** works in dry conditions, has a moderately high longevity and little environmental impact.
- **Environmentally safe petroleum products** work well on high traffic areas and have high longevity.

PRODUCT APPLICATION

Product longevity depends on proper application. Listed below are general guides for applying liquid dust control products:

- Scarify the top 100 mm of soil and blade a smooth surface.
- Crown or slope the surface to avoid ponding.
- Pre-water the area at 0.14-1.4 l/m² or per manufacturer's guide.
- Apply the solution per manufacturer's guide.
- Allow the treated area to cure per manufacturer's guide then compact.
- Maintain by re-applying the agent before it becomes ineffective. Re-apply at 50% of the original application rate.



A dust control agent (copolymers) can bind soil strongly enough to allow skid marks

Due to the temporary nature of the products, regular inspection and proper maintenance is required to achieve the desired results.